

# Anti-OXSR1 / OSR1 Antibody (Internal)

Rabbit Anti Human Polyclonal Antibody

Catalog # ALS17427

## Product Information

<b>Application</b>	WB, IHC-P
<b>Primary Accession</b>	<a href="#">O95747</a>
<b>Predicted</b>	Human, Mouse, Rat, Bovine
<b>Host</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>Calculated MW</b>	58022
<b>Concentration (mg/ml)</b>	1 mg/ml

## Additional Information

<b>Gene ID</b>	9943
<b>Alias Symbol</b>	OXSR1
<b>Other Names</b>	OXSR1, Oxidative-stress responsive 1, KIAA1101
<b>Target/Specificity</b>	Recognizes endogenous levels of OXSR1 protein.
<b>Reconstitution &amp; Storage</b>	PBS, pH 7.3, 0.01% sodium azide, 30% glycerol. Store at -20°C. Aliquot to avoid freeze/thaw cycles.
<b>Precautions</b>	Anti-OXSR1 / OSR1 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

<b>Name</b>	OXSR1 ( <a href="#">HGNC:8508</a> )
<b>Function</b>	Effector serine/threonine-protein kinase component of the WNK-SPAK/OSR1 kinase cascade, which is involved in various processes, such as ion transport, response to hypertonic stress and blood pressure (PubMed: <a href="#">16669787</a> , PubMed: <a href="#">18270262</a> , PubMed: <a href="#">21321328</a> , PubMed: <a href="#">34289367</a> ). Specifically recognizes and binds proteins with a RFXV motif (PubMed: <a href="#">16669787</a> , PubMed: <a href="#">17721439</a> , PubMed: <a href="#">21321328</a> ). Acts downstream of WNK kinases (WNK1, WNK2, WNK3 or WNK4): following activation by WNK kinases, catalyzes phosphorylation of ion cotransporters, such as SLC12A1/NKCC2, SLC12A2/NKCC1, SLC12A3/NCC, SLC12A5/KCC2 or SLC12A6/KCC3, regulating their activity (PubMed: <a href="#">17721439</a> ). Mediates regulatory volume increase in response to hyperosmotic stress by catalyzing phosphorylation of ion cotransporters SLC12A1/NKCC2, SLC12A2/NKCC1 and SLC12A6/KCC3 downstream of WNK1 and WNK3 kinases (PubMed: <a href="#">16669787</a> , PubMed: <a href="#">21321328</a> ). Phosphorylation of Na-K-Cl cotransporters

SLC12A2/NKCC1 and SLC12A2/NKCC1 promote their activation and ion influx; simultaneously, phosphorylation of K-Cl cotransporters SLC12A5/KCC2 and SLC12A6/KCC3 inhibit their activity, blocking ion efflux (PubMed:[16669787](#), PubMed:[19665974](#), PubMed:[21321328](#)). Acts as a regulator of NaCl reabsorption in the distal nephron by mediating phosphorylation and activation of the thiazide-sensitive Na-Cl cotransporter SLC12A3/NCC in distal convoluted tubule cells of kidney downstream of WNK4 (PubMed:[18270262](#)). Also acts as a regulator of angiogenesis in endothelial cells downstream of WNK1 (PubMed:[23386621](#), PubMed:[25362046](#)). Acts as an activator of inward rectifier potassium channels KCNJ2/Kir2.1 and KCNJ4/Kir2.3 downstream of WNK1: recognizes and binds the RFXV/I variant motif on KCNJ2/Kir2.1 and KCNJ4/Kir2.3 and regulates their localization to the cell membrane without mediating their phosphorylation (PubMed:[29581290](#)). Phosphorylates RELL1, RELL2 and RELT (PubMed:[16389068](#), PubMed:[28688764](#)). Phosphorylates PAK1 (PubMed:[14707132](#)). Phosphorylates PLSCR1 in the presence of RELT (PubMed:[22052202](#)).

<b>Cellular Location</b>	Cytoplasm
<b>Tissue Location</b>	Ubiquitously expressed in all tissue examined.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.